Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

ITEMS 69296, 69298-69301

PACIFICHYDROSTAR®

SUBMERSIBLE PUMP
WITH FLOAT SWITCH

Visit our website at: http://www.harborfreight.com
Email our technical support at: tech@harborfreight.com

REV 12c

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-800-444-3353 as soon as possible.

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Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠WARNING

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

Before start-up, note the following:

The pump can be connected to any shock-proof plug which has been installed according to regulations. The plug must have a supply voltage of 110-120 V~ at 60 Hz.

CAUTION

Item 69296:
This pump is intended for use with clear water only.

Items 69298, 69299, 69300, 69301:
These pumps are intended for use with clear or dirty water only.

⚠WARNING

IMPORTANT! Before starting to run Pump, please have the following items checked by an expert:

1. Risk of electric shock – This pump is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electric shock, connect only to a properly grounded, grounding-type receptacle.
2. Risk of electric shock – This pump has not been investigated for use in swimming pool areas.
3. The electrical connections must be protected from moisture. **Do not submerge power cord connection.**
4. If there is danger of flooding, the electrical connections must be taken to higher ground.
5. Circulation of caustic fluids, as well as the circulation of abrasive materials, must be avoided at all costs.
6. The pump must be protected from frost.
7. The pump must be protected from running dry.
8. Access by children should also be prevented with appropriate measures.
9. WARNING: Handling the Power Cord on this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling. (California Health & Safety Code § 25249.5, *et seq.*)
10. The warnings, precautions, and instructions discussed in this instruction manual cannot Cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Fluid Type

The Pump is designed for use with water with max. temperature of 77° F (25°C).
Do not use for other fluids, especially not fuels, cleaning fluids, or other chemical products.

Specifications

Model	69296	69298	69299	69300	69301
Electrical Rating	110-120V~ / 60Hz				
Rated Amperage	2.5A	4A	4.5A	5.5A	5.5A
Maximum Flow Rate	1670 GPH	2110 GPH	2866 GPH	2910 GPH	2640 GPH
Power Cord Length*	10′*				
Maximum Head Lift*	20′*	16′*	23′*	26′*	20′*
Discharge Size	1.25″ NPT	1.25″ NPT	1.5″ NPT	1.5″ NPT	1.25″ NPT
Minimum Water Height	3/4″	2-1/2″	3″	3″	3″
Certification	UL LISTED E230946	UL LISTED E230946	ETL US LISTED Intertek	UL LISTED E230946	UL LISTED E230946

***Do not submerge beyond power cord length. Do not submerge power cord connection.**

REV 12c

Installation

The submersible pump must be installed with either:

a. A fixed pipeline or

b. A flexible hose pipe.

Please note!

1. Do not install the pump by suspending it unsupported from its delivery pipe or power cord. The pump must be suspended from the handle or be placed on the bottom of the area.
2. Make sure the Pump rests on flat, level and solid foundation. Do not operate it on earth, clay, sand or gravel surfaces.
3. Make sure the Pump's inlet openings near the Base are free of debris.
4. Avoid installing Pump in areas of extreme heat or cold.

Power Supply

1. The pump is equipped with a shock-proof plug according to regulations. The pump is designed to be connected to 110-120 V~, 60 Hz safety socket.
2. Make sure that the socket is sufficiently secured and is in excellent condition.
3. When the plug is inserted into the socket the pump will start operating.

WARNING! If the power cord or plug is damaged, do not use the pump. The power cord or plug may only be repaired by a certified electrician.

Hose Connections

1. Connect a hose to the pump outlet using a step nipple and hose clamps (not included). If the outlet hose is narrower than the pump outlet, output will be reduced.
2. Route the hose to the desired discharge area. The hose should be kept as short as possible with a minimum number of turns. For best performance, the max. recommended hose length is 50 ft.
3. To reduce vibration and noise, a short section of rubber hose maybe be attached to the end of the discharge line with clamps.

Areas of use

This pump can be used to transfer water (e.g. household, farming, plumbing).

Operation

1. After reading these instructions, consider the following points before starting the pump:
   a. Verify that the pump rests on the floor of the shaft, if it is not suspended by the handle.
   b. Verify that the delivery pipe is properly connected.
   c. Verify that the electrical connection is 110-120 V~, 60 Hz.
   d. Verify that the electrical socket is in good condition.
   e. Verify that water and moisture cannot get near the power supply socket or power cord connection.
2. Snap the cord for the Float Switch into the cable Clip on the side of the handle. Once the cord is snapped into place, adjust the level that the Pump turns on by adjusting the length of the Float Switch's cord.
3. The Float Switch will automatically turn off the Pump when the level of water drops below the Switch.
4. Verify that the pump is installed so as to prevent running dry.
   NOTE: The float must be allowed to move freely and must shut off the Pump before it runs dry.
5. **CAUTION:** Do not run the Pump dry. Doing so will increase wear on the unit and lead to Seal damage. Water must be deeper than the minimum water level (shown on specifications chart) for the Pump to operate properly.
6. **NOTE:** The Pump has a built-in thermal protector for the motor, which automatically shuts it off to avoid overheating. After it cools, it will cycle back on. Wait for the cycle to continue-do not try to manually turn on Pump after it has cut off.
7. Plug power cord into an outlet fitted with a GFCI.
8. Verify that the discharge water travels several feet from the foundation.
9. **NOTE:** It is normal for air bubbles from trapped air to appear around the handle or pressure Switch. The pump is equipped with a de-aerating device with removes air locked in the Pump. Also, if the water level drops below the vent valve, some water might purge from Pump via the vent valve.

⚠WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Unplug the Pump from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

If the pump is moved during operation, flush it out with clean water after every use.

Quarterly Maintenance

The below maintenance must be performed at least once every 3 months under optimal conditions.
For frequent use, or dirty areas, more frequent maintenance is required.

1. Clean sludge and debris from the Base of the Pump.
2. Rinse the housing off with clean water.
3. Clean fibers from inside the pump housing with a clean cloth, then store Pump in a dry and clean location away from children.
4. If the pump housing cannot be cleaned from the outside, it must be thoroughly cleaned. **Unplug the power cord before maintenance.** Dismantle the bottom part of the pump as follows:
   a. Remove Screws and Base.
   b. Rinse the impeller with clean water.
   c. To prevent damage, do not rest the pump on the impeller or pry against the impeller.
   d. Reassemble in reverse order.

Troubleshooting

Problem	Possible Causes	Possible Solutions
Pump runs, but will not deliver any water.	1. Impeller clogged. 2. When starting, the water height falls below the minimum water level. 3. Low line voltage. 4. Check valve (if installed) stuck or installed backwards.	1. Clean out dirt and debris from impeller. 2. Water must be deep enough for the Pump to operate properly. 3. Consult with an electrician. 4. Remove and examine check valve.
Pump won't start or run.	1. Check power connections and circuits/fuses. 2. Water level too low to activate float Switch. 3. Impeller clogged. 4. Defective motor.	1. Consult with an electrician. 2. Allow water level to rise or move Pump to a lower location. 3. Clean out dirt and debris from impeller. 4. Have a qualified service technician repair or replace.
Excessive noise or vibration.	1. Worn Bearings. 2. Debris in impeller. 3. Discharge hose restricted.	1. Have a qualified service technician repair or replace. 2. Clean impeller. 3. Clean Pump and discharge hose.
Pump starts and stops too frequently.	1. Water temperature too high. 2. Back flow of water from discharge hose.	1. Do not exceed 77° Fahrenheit water temperature. 2. Install or inspect check valve.

Follow all safety precautions whenever diagnosing or servicing the tool.
Disconnect power supply before service.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

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Record Product's Serial Number Here:_____

Note: If product has no serial number, record month and year of purchase instead.

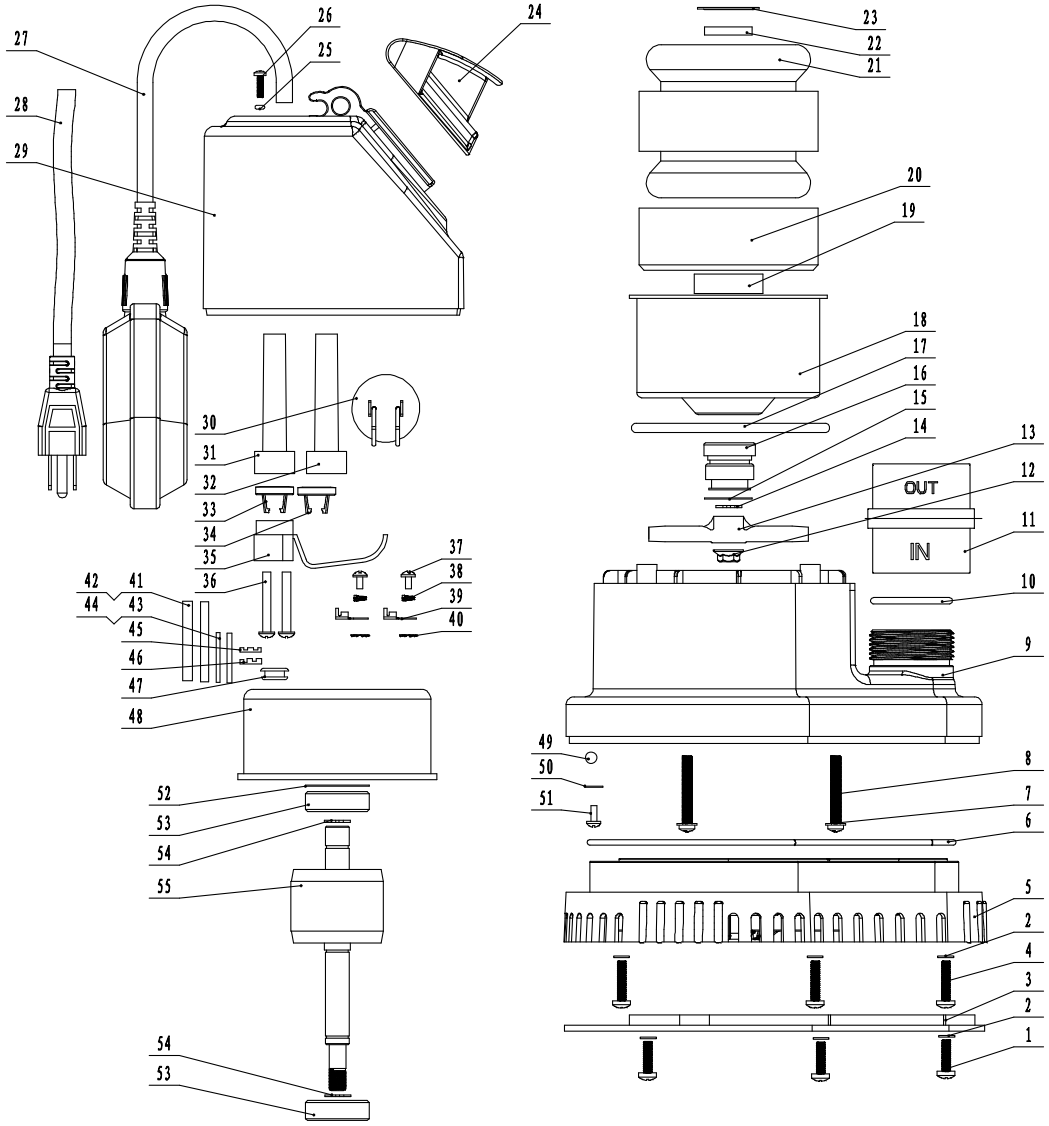
Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

69296 Parts List and Diagram

Part	Description	Qty
1	Cross Head Screw ST4.2×16	3
2	Plain Washer 4	9
3	Base Plate	1
4	Cross Head Screw ST4.2×22	6
5	Base	1
6	O-ring 148.8×3.1	1
7	Plain Washer 4	4
8	"Y" - Screw YST4.7×35	4
9	Pump Body	1
10	O-ring 34.8×3.1	1
11	Junction	1
12	Flange Nut M8	1
13	Impeller 60Hz	1
14	C-Clip Ø12	1
15	Plain Washer Ø12×Ø20×0.5	1
16	Mechanical Seal 301-12B	1
17	O-ring 90×4.4	1
18	Stator Cover	1
19	Gasket	1

Part	Description	Qty
20	Bearing Base	1
21	Winding 56#B 25	1
22	Framework Seal 12×26×4	1
23	Adjustable Gasket	1
24	Handle	1
25	O-ring 2.5×1.8	2
26	Cross Head Screw ST3.5×11	1
27	Float Switch	1
28	Power Cord	1
29	Upper Cover	1
30	Capacitor 16μF/250V	1
31	Cable Jacket	1
32	Cable Jacket	2
33	Cable Clip (H05)	1
34	Cable Clip	1
35	Capacitor Clip	1
36	Cross Head Screw ST4.2×30	3
37	Cross Head Bolt M4×6	2
38	Spring Lock Washer 4	2

Part	Description	Qty
39	Terminal Ø4.2	2
40	Lock Washer, Tooth 4	2
41	Pipe Ø5	1
42	Pipe Ø4	5
43	Fiberglass Pipe Ø2	5
44	Fiberglass Pipe Ø2.5	1
45	Lug Plate (large)	5
46	Lug Plate (small)	1
47	Grommet	1
48	Upper Plate	1
49	Steel ball SØ6	1
50	Supporting Plate	1
51	Cross Head Screw ST3×10	1
52	Wave Spring Washer D32	1
53	Ball Bearing 6201	2
54	C-Clip Ø12	2
55	Rotor	1

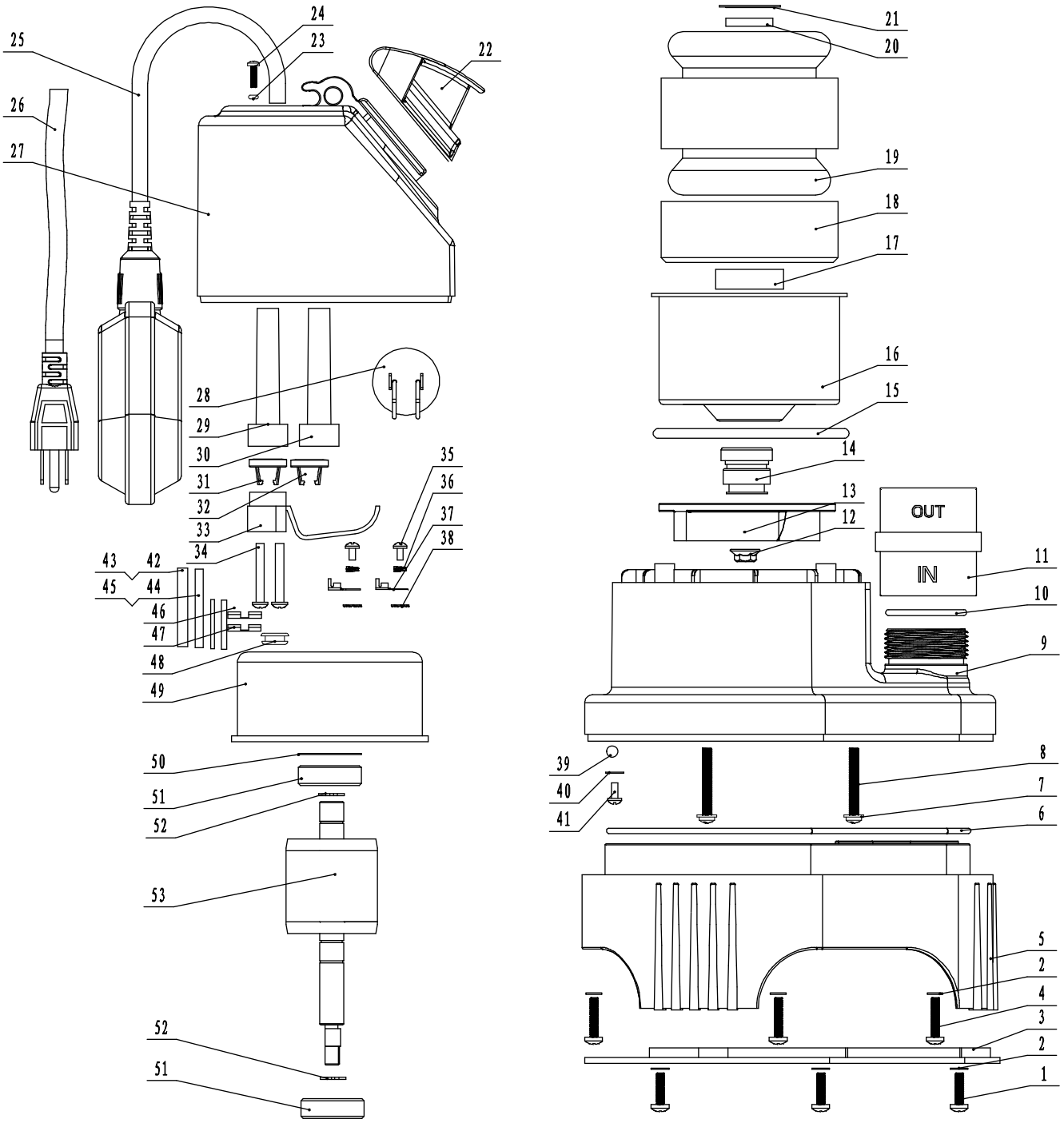


69298 Parts List and Diagram

Part	Description	Qty
1	Cross Head Screw ST4.2×16	3
2	Plain Washer 4	9
3	Base Plate	1
4	Cross Head Screw ST4.2×22	6
5	Base	1
6	O-ring 148.8×3.1	1
7	Plain Washer 4	4
8	“Y” - Screw YST4.7×35	4
9	Pump Body	1
10	O-ring 34.8×3.1	1
11	Junction	1
12	Flange Nut M8	1
13	Impeller	1
14	Mechanical Seal 301-12	1
15	O-ring 90×4.4	1
16	Stator Cover	1
17	Gasket	1
18	Bearing Base	1

Part	Description	Qty
19	Winding 56#B 36	1
20	Framework Seal 12×26×4	1
21	Adjustable Gasket	1
22	Handle	1
23	O-ring 2.5×1.8	2
24	Cross Head Screw ST3.5×11	1
25	Float Switch	1
26	Power Cord	1
27	Upper Cover	1
28	Capacitor 20μF/250V	1
29	Cable Jacket	1
30	Cable Jacket	2
31	Cable Clip (H05)	1
32	Cable Clip	1
33	Capacitor Clip	1
34	Cross Head Screw ST4.2×30	3
35	Cross Head Bolt M4×6	2
36	Spring Lock Washer 4	2

Part	Description	Qty
37	Terminal Ø4.2	2
38	Lock Washer, Tooth 4	2
39	Steel ball SØ6	1
40	Supporting Plate	1
41	Cross Head Screw ST3×10	1
42	Pipe Ø5	1
43	Pipe Ø4	5
44	Fiberglass Pipe Ø2	5
45	Fiberglass Pipe Ø2.5	1
46	Lug Plate (large)	5
47	Lug Plate (small)	1
48	Grommet	1
49	Upper Plate	1
50	Wave Spring Washer D32	1
51	Ball Bearing 6201	2
52	C-Clip Ø12	2
53	Rotor	1

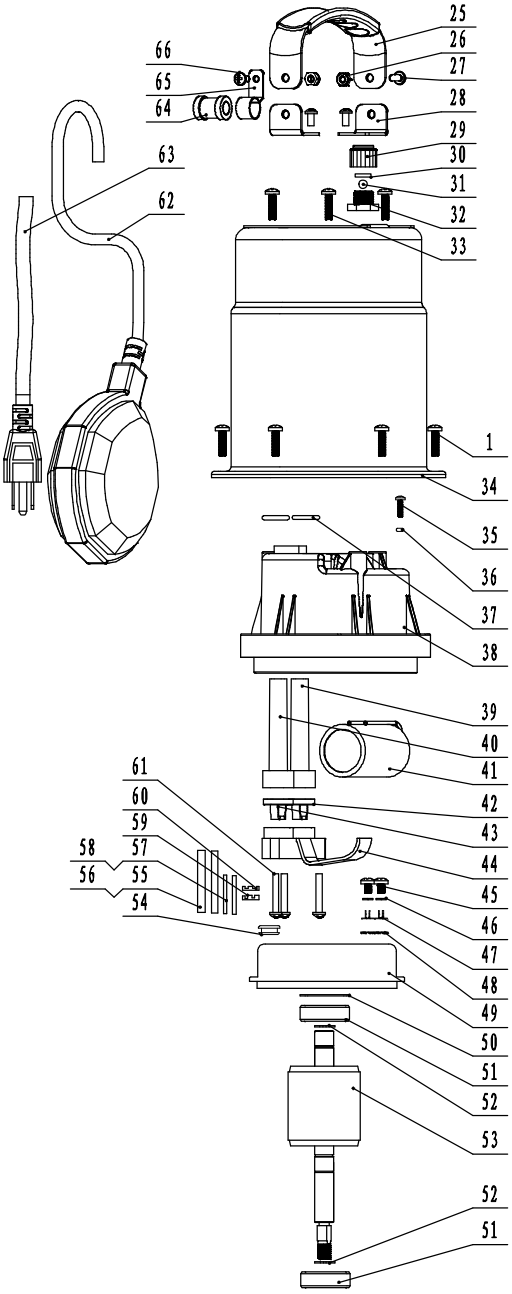


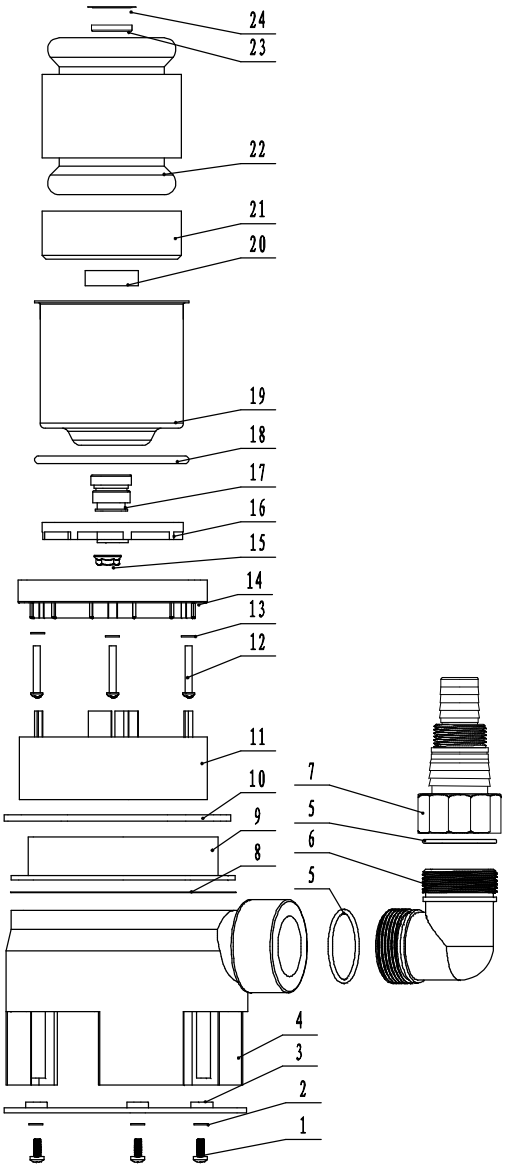
69299 Parts List and Diagram

Part	Description	Qty
1	Cross Head Screw ST4.2×16	9
2	Plain Washer 4	3
3	Base Plate	1
4	Pump Body	1
5	O-ring 34.8×3.1	1
6	Junction	1
7	Junction	1
8	Gasket	1
9	Supporter	1
10	Gasket	1
11	Supporter	1
12	“Y” - Screw YST4.7×35	6
13	Plain Washer	6
14	Supporter	1
15	Flange Nut M8	1
16	Impeller	1
17	Mechanical Seal 301-12	1
18	O-ring 90×4.8	1
19	Stator Cover	1
20	Gasket	1
21	Bearing Base	1
22	Winding 56#B 44	1

Part	Description	Qty
23	Framework Seal 12×26×4	1
24	Adjustable Gasket	1
25	Handle	1
26	Nut M5	2
27	Cross Head Bolt M5×8	3
28	Handle Bracket	2
29	Exhaust Valve Cap	1
30	Plain Washer	1
31	Steel ball SØ6	1
32	Exhaust Valve	1
33	“Y” - Screw YST4.7×16	3
34	Barrel	1
35	O-ring 2.5×1.8	2
36	Cross Head Screw ST3.5×11	1
37	O-ring 15×2.65	2
38	Upper Cover	1
39	Cable Jacket	1
40	Cable Jacket	2
41	Capacitor 20μF/250V	1
42	Cable Clip (H05)	1
43	Cable Clip	1
44	Capacitor Clip	1

Part	Description	Qty
45	Cross Head Bolt M4×6	2
46	Spring Lock Washer 4	2
47	Terminal Ø4.2	2
48	Lock Washer, Tooth 4	2
49	Upper Plate	1
50	Wave Spring Washer D32	1
51	Ball Bearing 6201	2
52	C-Clip Ø12	2
53	Rotor	1
54	Grommet	1
55	Pipe Ø5	1
56	Pipe Ø4	5
57	Fiberglass Pipe Ø2	5
58	Fiberglass Pipe Ø2.5	1
59	Lug Plate (large)	1
60	Lug Plate (small)	5
61	Cross Head Screw ST4.2×30	3
62	Float Switch	1
63	Power Cord	1
64	Wire Clip Jacket	1
65	Wire Clip	1
66	Cross Head Bolt M5×10	1



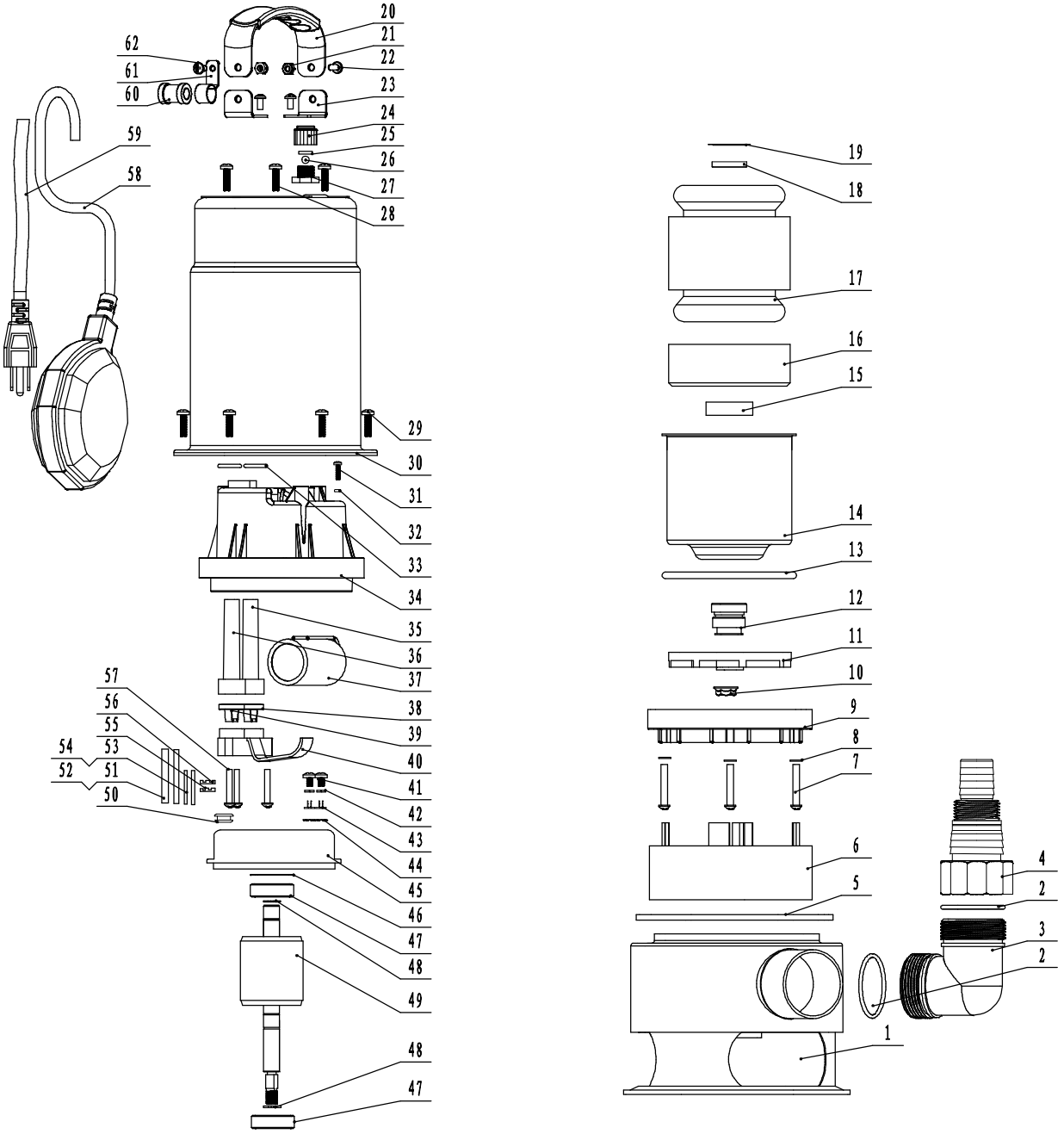


69300 Parts List and Diagram

Part	Description	Qty
1	Pump Body	1
2	O-ring 42.5×2.65	2
3	Junction	1
4	Junction	1
5	Gasket	1
6	Supporter	1
7	“Y” - Screw YST4.7×30	6
8	Washer	6
9	Supporter	1
10	Flange Nut M8	1
11	Impeller	1
12	Mechanical Seal 301-12	1
13	O-ring 90×4.8	1
14	Stator Cover	1
15	Gasket	1
16	Bearing Base	1
17	Winding 56#B 54	1
18	Framework Seal 12×26×4	1
19	Adjustable Gasket	1
20	Handle	1
21	Nut M5	2

Part	Description	Qty
22	Cross Head Bolt M5×8	3
23	Handle Bracket	2
24	Exhaust Valve Cap	1
25	Plain Washer	1
26	Steel ball SØ6	1
27	Exhaust Valve	1
28	“Y” - Screw YST4.7×16	3
29	Cross Head Bolt M4×12	6
30	Barrel	1
31	Cross Head Screw ST3.5×11	1
32	O-ring 2.5×1.8	1
33	O-ring 15×2.65	2
34	Upper Cover	1
35	Cable Jacket	1
36	Cable Jacket	1
37	Capacitor 20μF/250V	1
38	Cable Clip (H05)	1
39	Cable Clip	1
40	Capacitor Clip	1
41	Cross Head Bolt M4×6	2
42	Spring Lock Washer 4	2

Part	Description	Qty
43	Terminal Ø4.2	2
44	Lock Washer, Tooth 4	2
45	Upper Plate	1
46	Wave Spring Washer D32	1
47	Ball Bearing 6201	2
48	C-Clip Ø12	2
49	Rotor	1
50	Grommet	1
51	Pipe Ø5	1
52	Pipe Ø4	5
53	Fiberglass Pipe Ø2	1
54	Fiberglass Pipe Ø2.5	5
55	Lug Plate (large)	1
56	Lug Plate (small)	5
57	Cross Head Screw ST4.2×30	3
58	Float Switch	1
59	Power Cord	1
60	Wire Clip Jacket	1
61	Wire Clip	1
62	Cross Head Bolt M5×10	1

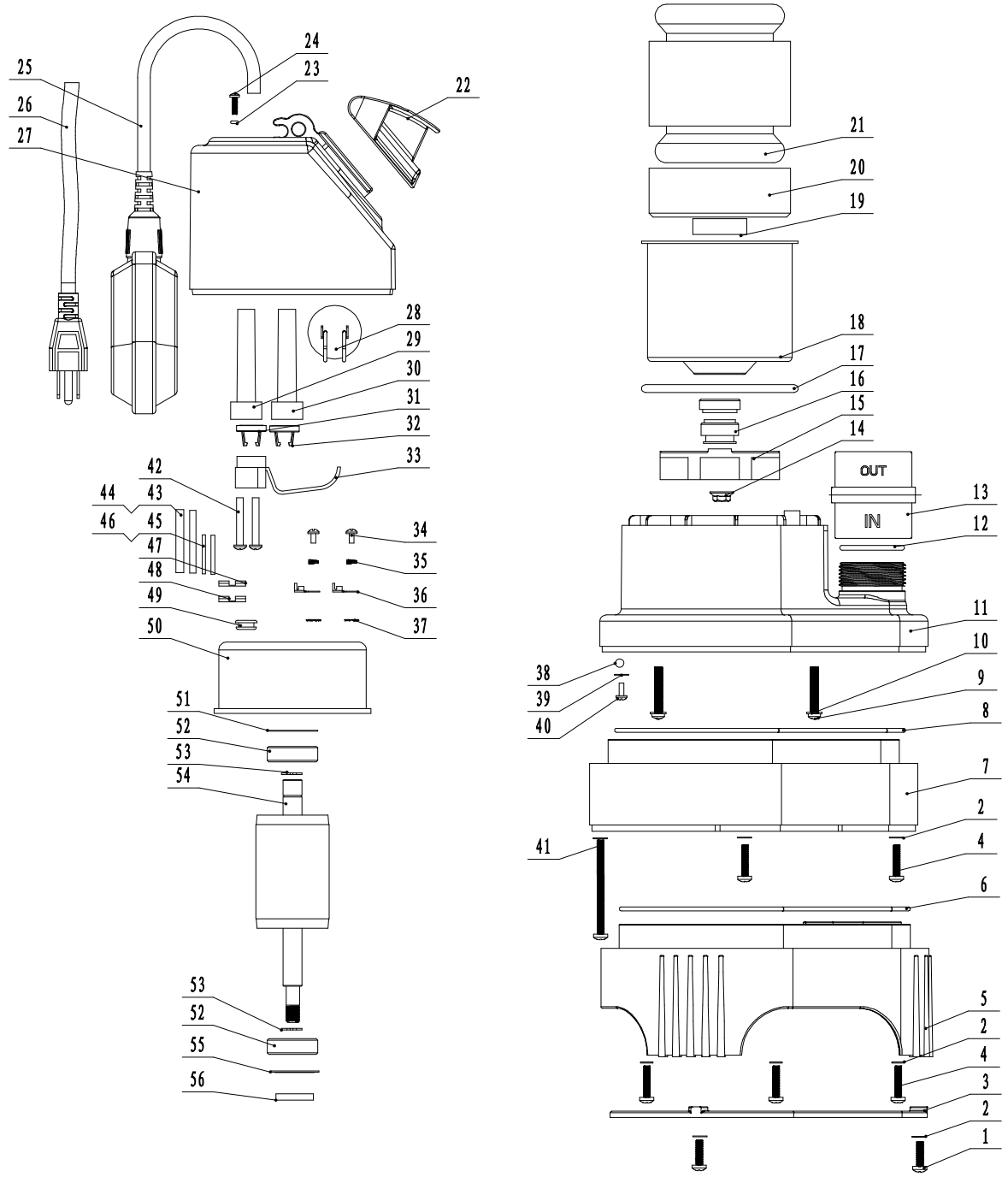


69301 Parts List and Diagram

Part	Description	Qty
1	Cross Head Screw ST4.2×16	3
2	Plain Washer 4	9
3	Base Plate	1
4	Cross Head Screw ST4.2×22	10
5	Base	1
6	O-ring 150×2.65	1
7	Supporter	1
8	O-ring 148.8×3.1	1
9	Plain Washer 4	4
10	“Y” - Screw YST4.7×35	4
11	Pump Body	1
12	O-ring 34.8×3.1	1
13	Junction	1
14	Flange Nut M8	1
15	Impeller	1
16	Mechanical Seal 301-12	1
17	O-ring 90×4.4	1
18	Stator Cover	1
19	Gasket	1

Part	Description	Qty
20	Bearing Base	1
21	Winding 56#B 54	1
22	Handle	1
23	O-ring 2.5×1.8	2
24	Cross Head Screw ST3.5×11	1
25	Float Switch	1
26	Power Cord	1
27	Upper Cover	1
28	Capacitor 20μF/250V	1
29	Cable Jacket	1
30	Cable Jacket	2
31	Cable Clip(H05)	1
32	Cable Clip	1
33	Capacitor Clip	1
34	Cross Head Bolt M4×6	2
35	Spring Lock Washer 4	2
36	Terminal Ø4.2	2
37	Lock Washer, Tooth 4	2
38	Steel ball SØ6	1

Part	Description	Qty
39	Supporting Plate	1
40	Cross Head Screw ST3×10	1
41	Cross Head Screw ST4.2×60	2
42	Cross Head Screw ST4.2×30	3
43	Pipe Ø5	1
44	Pipe Ø4	5
45	Fiberglass Pipe Ø2	5
46	Fiberglass Pipe Ø2.5	1
47	Lug Plate (large)	5
48	Lug Plate (small)	1
49	Grommet	1
50	Upper Plate	1
51	Wave Spring Washer D32	1
52	Ball Bearing 6201	2
53	C-Clip Ø12	2
54	Rotor	1
55	Framework Seal 12×26×4	1
56	Adjustable Gasket	1



Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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